ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of:	)	
	)	
Revision of the Commission's	)	CC Docket No. 94-102
Rules To Ensure Compatibility	)	
With Enhanced 911 Emergency	)	
Calling Systems	)	

COMMENTS OF
THE PERSONAL COMMUNICATIONS INDUSTRY ASSOCIATION

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The Personal Communications Industry Association ("PCIA"),[1] by its attorneys, respectfully submits its comments on the Commission's Public Notice regarding an *ex parte* presentation entitled "Public Safety-Wireless Industry Consensus: Wireless Compatibility Issues, CC Docket 94-102."[2] PCIA remains supportive of the goal of wireless access to enhanced 911 (E911) services, and therefore endorses many of the *Agreement*'s proposals. However, because the *Agreement* was drafted by only a small portion of the parties responsible for its implementation, and the proposed

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[1] PCIA is the international trade association created to represent the interests of both the commercial and the private mobile radio service communications industries. PCIA's Federation of Councils includes: the Paging and Narrowband PCS Alliance, the Broadband PCS Alliance, the Specialized Mobile Radio Alliance, the Site Owners and Managers Association, the Association of Wireless System Integrators, the Association of Communications Technicians, and the Private System Users Alliance. In addition, as the FCC-appointed frequency coordinator for the 450-512 MHz bands in the Business Radio Service, the 800 and 900 MHz Business Pools, the 800 MHz General Category frequencies for Business Eligibles and conventional SMR systems, and the 929 MHz paging frequencies, PCIA represents and serves the interests of tens of thousands of licensees.

[2] DA 96-108 (released Feb. 16, 1996) ("*Agreement*").

implementation schedule for some capabilities appears inconsistent with current technology, PCIA respectfully requests that the implementation deadlines be re-evaluated.

I. INTRODUCTION AND SUMMARY

The *Agreement* represents a consensus between the Cellular Telephone Industry Association ("CTIA") and three public safety organizations: the National Emergency Number Association ("NENA"), the Association of Public Safety Communications Officials ("APCO"), and the National Association of State Nine One One Administration ("NASNA"). In the *Agreement*, the parties agreed to the following implementation schedule for the provision of wireless E911: (1) in Phase I, within 12 or 18 months, wireless carriers must provide cell site information using 7 or 10 digit pseudo-automatic number identification ("ANI"), *and* a 7 or 10-digit caller ANI, depending on the local landline network's signaling capability;[3] and (2) in Phase II, within 5 years, wireless carriers must provide automatic location identification ("ALI") accurate to latitude and longitude coordinates of 125 meters using a root mean square calculation.[4] The parties further asked the Commission to rule that states are permitted to assess taxes or fees to compensate wireless carriers for the provision of 911 service,[5] and that wireless carriers will not be found legally liable for the release

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[3] *Agreement* at 1-2.

[4] *Id.* at 2-3.

[5] *Id.* at 3.

of caller number and location information.[6] In addition, the parties agreed to work on methods and language for consumer education regarding non-compliant equipment.[7]

PCIA strongly endorses the *Agreement*'s goal of providing CMRS subscribers with access to enhanced 911 (E911) services. (Because it is impractical to provide E911 access to non-interconnected wireless callers, PCIA believes that SMR subscribers who choose not to be connected to the public switched network should not have mandatory access to E911.)[8] In particular, PCIA supports the proposals to implement wireless E911 compatibility in a two-phased approach, to reach a goal of ALI precision to 125 meters, root mean square, to promulgate federal rules resolving liability and funding issues, and to inform consumers of potential equipment incompatibilities through education rather than labeling. However, because the recommendations contained in the *Agreement* regarding automatic number identification and automatic location information have been reviewed by only a small portion of the parties responsible for their implementation, and the technology is not currently available to implement certain aspects of these proposals, PCIA is not convinced that the suggested implementation schedule is realistic.

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[6] *Id.* at 4.

[7] *Id.* at 5.

[8] *See* PCIA Comments at 6.

II. PCIA SUPPORTS WIRELESS ACCESS TO E911, BUT BELIEVES THAT SUCH ACCESS MUST BE BASED ON INDUSTRY-WIDE CONSENSUS

PCIA has actively promoted wireless access to E911 services for a number of years, beginning with its participation in a Joint Experts Meeting that produced a report entitled "Wireless Support of 9-1-1 and Enhanced 9-1-1 Emergency Services ("JEM Report"). This JEM Report was the result of collaboration between PCIA, APCO, NENA, NASNA, the Telecommunications Industry Association ("TIA"), and Committee T1 Telecommunications. This JEM Report prioritizes PSAP service requirements, discusses how these requirements can be implemented by all necessary parties, and evaluates available location technologies.

In addition, PCIA has filed both comments and reply comments in this proceeding. Further, even as this rulemaking proceeds, industry members will take part in a T1P1 standards group meeting, to be held during the week of March 4, that will address wireless E911 standards as part of its agenda. This meeting is of particular importance because it will consider the needs and capabilities of four of the PCS air interfaces (PCS 1900, Composite CDMA/TDMA, DACS and Wideband CDMA). Participants hope to use their reply comments to relay the results of this session to the Commission.

Throughout this proceeding, PCIA has argued that industry-wide technological advances and coordinated standards setting, not arbitrary deadlines, will ultimately give wireless consumers efficient access to E911 service. In this regard, the JEM Report notes that the provision of wireless E911 service requires coordination between the

following industrial and governmental organizations: (1) wireless equipment manufacturers, which must design and manufacture ANI and ALI capable equipment; (2) wireless carriers, which must pass ANI and ALI information to the local exchange carrier; (3) wireline local exchange carriers, which must pass this information on to public safety organizations; (3) public safety organizations, which must decode and act on the ANI and ALI information; and (4) federal, state and local governments, which must oversee and coordinate the entire process.

Given the fact that all of the aforementioned parties must be able to carry out their assigned tasks in support of wireless E911, it is vital that they review and support any consent agreement which purports to be universally binding. The agreement in question involves only the public safety community and a trade association representing a segment of the wireless industry. Notably absent from the negotiations leading up to the *Agreement* are equipment manufacturers, landline carriers, and many CMRS carriers, including some (such as the C-band auction winners) who are yet to be identified. Accordingly, the Commission should not endorse the proposed implementation timetable unless all affected interests agree that it is reasonably achievable.

III. PCIA SUPPORTS A NUMBER OF THE PROPOSALS CONTAINED IN THE CONSENT AGREEMENT

PCIA supports a number of the proposals contained in the *Agreement* as consistent with both the public interest and the policies that PCIA and many other parties have advocated in this docket. Specifically, PCIA concurs in the proposals to

reduce the implementation schedule from three to two phases, to measure ALI in two dimensions based on a root mean square calculation, to shield wireless carriers from liability for the release of number and location information associated with a 911 call, to inform consumers of possible equipment incompatibilities through education rather than labeling, and to promulgate rational rules for funding wireless E911 systems.

Preliminarily, PCIA endorses the proposal to reduce the proposed implementation schedule from three phases to two phases. The original Notice of Proposed Rulemaking[9] called for wireless carriers to provide: (1) the pseudo-ANI identifying the location of the cell site receiving the 911 call within one year;[10] (2) the approximate distance and direction of the caller from the cell site within three years;[11] and (3) the caller's location, accurate to within a 125 meter sphere, within five years.[12] In their opening comments, PCIA[13] and a number of other parties[14] argued that the proposed phase two would be expensive to implement, would result in the deployment of throw away technology, and would supply the PSAP with information

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[9] FCC 94-237 (released October 19, 1994) ("Notice").

[10] *Notice*, ¶ 51.

[11] *Id.*, ¶ 50.

[12] *Id.*, ¶ 51.

[13] PCIA Comments at 14-15.

[14] *See, e.g.*, Ericsson Comments at 7-8; Motorola Comments at 14; GTE Comments at 18-20; Southwestern Bell Comments at 16-17.

that would not be of substantial use in locating the caller. This analysis remains unchanged; therefore, PCIA concurs with the proposal to eliminate phase two.

As with the elimination of phase two, PCIA endorses the *Agreement*'s proposals to eliminate the altitude requirement from the ALI and to allow wireless carriers to estimate a caller's location through the use of a root mean square calculation. Specifically, in the *Notice*, the Commission called for accuracy to within a 125 meter sphere,[15] while the *Agreement* reduces this required accuracy to a two dimensional precision of 125 meters, root mean square.[16] PCIA favors this change because a number of its members have indicated that providing altitude information is a particularly vexing technological problem. Further, the root mean square approach is in accord with technological and economic reality, as no cost-effective location technology could provide precise location data every time.

Third, in their opening comments, PCIA[17] and many other parties[18] called for the implementation of rules that would grant wireless carriers the same liability protection as is currently granted to wireline carriers regarding the provision of access to 911 services. Such liability protection continues to be an essential prerequisite to the

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[15] *Notice*, ¶ 51.

[16] *Agreement* at 2.

[17] PCIA Comments at 27-28.

[18] *See* AT&T Comments at 40-41; Bell Atlantic Comments at 11; BellSouth Comments at 20; Nextel Communications Comments at 8; Southwestern Bell Comments at 24-25, 27.

provision of wireless E911. Consequently, PCIA agrees with the proposal to extend the same immunity to wireless and wireline carriers.

Fourth, in response to a Commission query as to whether wireless handsets that are incompatible with E911 service should be labeled as such, PCIA argued that such a labeling requirement would be misleading and inordinately expensive.[19] Specifically, a warning label might mislead callers into either believing that the instrument was incapable of calling 911 or that any *network* upgrades to provide E911 access could not be accessed by the labeled instrument. For these reasons, PCIA supports the *Agreement*'s proposal to inform consumers of incompatible equipment through education, not labeling.

Finally, PCIA endorses the *Agreement*'s conclusion that "state or local 9-1-1 fees or taxes reasonably related to recovery of prudently-incurred wireless system or service costs are not barred as a matter of law."[20] As stated in its opening comments, PCIA continues to believe that the implementation of wireless E911 will engender substantial costs for wireless carriers, and that a cost recovery scheme must be implemented.[21] Many parties joined PCIA in its request.[22] PCIA continues to urge

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[19] PCIA Comments at 25-26.

[20] *Agreement* at 3.

[21] PCIA Comments at 29.

[22] *See* AT&T Comments at 43; Bell Atlantic Comments at 12; GTE Comments at 31-32.

that the FCC, in concert with state commissions, develop such an equitable funding mechanism for wireless E911.

IV. THE IMPLEMENTATION SCHEDULE FOR ANI AND ALI MIGHT PROVE TO BE UNREALISTICALLY OPTIMISTIC

The *Agreement* is the product of negotiations between representatives of the public safety community and a trade association representing the cellular telephone industry. Perhaps because input was not sought from equipment manufacturers, landline carriers, PCS carriers, and SMR providers, the time frames set forth in the *Agreement* might be technologically insupportable, especially for some or even most digital PCS technology. These technical difficulties are inherent in both the *Agreement*'s Phase I (ANI) and Phase II (ALI) implementation schedules.

There are a number of difficulties inherent in the *Agreement*'s proposal to require the wireless industry to provide "cell site information using a 7 or 10-digit pseudo-ANI *and* a 7 or 10-digit caller ANI (*i.e.* calling party number)" within 18 months.[23] These difficulties include both network incompatibilities and issues related to cost. Preliminarily, it is important to note that as currently configured, most existing networks are incapable of carrying both pseudo-ANI for location and true ANI for call back; they can only carry one or the other. While it is true that some new PCS systems will employ SS7, and SS7 has the data capacity to carry both numbers, it must

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[23] *Agreement* at 1.

be programmed to do so. Such an upgrade will take time to develop, test, and finally deploy across the national telecommunications infrastructure.

Second, it is unclear whether all local exchange carriers and wireless carriers operate SS7 networks. While some carriers can probably deploy SS7 within 18 months in a cost effective fashion, others can not do so. Given the uncertain status of funding for wireless E911, these economic issues cannot be ignored. Even assuming that a funding mechanism is implemented, carriers would be imprudent to assume that reimbursement will be available for complete SS7 upgrades, absent firm assurances of such funding.

Finally, even if wireless carriers and wireline local exchange carriers could deploy an upgraded SS7 in a timely fashion, it is unclear whether the selective routers which route 911 calls from the landline network to the appropriate PSAP will be capable of processing such a signal. If both the ANI and the pseudo-ANI can not be delivered to the PSAP, then the aforementioned network modifications will not have the desired effect of getting assistance to wireless E911 callers in the most rapid fashion possible.

Therefore, in evaluating the practicality of the *Agreement*'s proposed 12 to 18 month implementation schedule, the Commission should pay particular attention to: (1) the comments of Bellcore and other parties with knowledge of wireline SS7 upgrades; (2) the comments of the wireline and wireless carriers who must deploy the upgraded signaling system software; and (3) the comments of manufacturers of

switching equipment. After evaluating these comments, the Commission might choose to extend the proposed ANI deployment schedule.

As with the proposed Phase I implementation schedule, the *Agreement*'s Phase II (ALI) implementation schedule is overly optimistic. Regarding the implementation of wireless ALI, PCIA is particularly concerned that the proposal in the *Agreement* seems to ignore: (1) the lack of progress in developing production versions of location technologies; and (2) the existence of a multitude of digital air interfaces, such as those used by PCS and SMR carriers.

In the opening round of this proceeding, numerous parties, including PCIA,[24] argued that because the technology required to implement ALI was not even in the prototype stage, the Commission's original five year ALI implementation schedule was unrealistic. One year later, the state of technology has not advanced to the point where the newly proposed five year deadline for the implementation of a less precise location technology is any more feasible.[25] While PCIA commends the manufacturers of the ALI technology utilized in the Associated Group trials for developing a system that is capable of meeting the proposed 125 meter root mean square standard, it is unclear

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[24] PCIA Comments at 20. *See also* Ameritech Comments at 8; Bell Atlantic Comments at 10; NYNEX Comments at 14; Pacific Bell Comments at 6; US West Comments at 14.

[25] PCIA is also concerned that the ultimately promulgated standard for location technology be deployable by SMR operators and other CMRS carriers utilizing single tower transmission systems.

from the *Agreement* and attached Exhibits how robust this ALI system is, and whether it was developed and tested for use with all air interfaces, including PCS and SMR.

Similarly, the Commission should not over-extrapolate the results of the three city trial using cellular telephony technology discussed in the Exhibits into sweeping technical requirements encompassing every air interface technology used by the entire CMRS industry. Different air interfaces may work better with different location technologies. For example, for SMR operators and other CMRS carriers utilizing single tower transmission systems, a different ALI approach will need to be developed. Therefore, many more trials will need to be conducted to ensure the best possible location technology is used by each air interface.

V. CONCLUSION

PCIA continues to support access to E911 services for all wireless subscribers, and endorses many of the proposals contained in the *Agreement*. However, the proposed implementation schedules for ANI and ALI might not be realistic based on the current state of technology. In evaluating the implementation schedule suggested in the *Agreement*, PCIA urges the Commission to pay particularly close attention to the comments of equipment manufacturers, local exchange carriers, and non-cellular CMRS carriers. (Because of the above-mentioned T1P1 meetings, the relevant

information may not be submitted until the reply round.) These parties, while not privy to the *Agreement*, would be largely responsible for its implementation.

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March 4, 1996

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing "Comments of the Personal Communications Industry Association" were served this 4th day of March, 1996 by first class mail, postage prepaid, on the parties on the attached list.

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